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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,901	02/09/2004	Arlan Dean Heil	HEIL 005	8776

7590

04/20/2005

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EXAMINER

ALI, SHUMAYA B

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/774,901	Applicant(s) HEIL, ARLAN DEAN	
	Examiner Shumaya B. Ali	Art Unit 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>detailed action</u> . |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention: figure 2 and 3.
2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there are no generic independent claims that recite on figure 3.
3. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.
4. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).
5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.
6. During a telephone conversation with attorney Mcclung, Guy on 4/14/2005 a provisional election was made without traverse to prosecute the invention of figure 2, claims 1-3,7-20. Affirmation of this

election must be made by applicant in replying to this Office action. Claims 4-6 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4-6 depends from claim 1, however claim 1 limitation "a portion of the footwear at an outer side" refers back to subject matter disclosed only in figure 2 (see specification page 9 lines 19-25) which is considered as a different embodiment since it is lacking a reference element 65 "side posts" disclosed in figure 3. Therefore, subject matter disclosed in claims 4-6 is considered indefinite since the metes and bounds of the claimed matter can not be determined without an independent claim directed to the subject matter disclosed in figure 3.

9. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to claim 8, limitation "an amount" renders indefinite. It is vague from the disclosure what or how much is proclaimed by "an amount".

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3743

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3,7,8,10,17,18 rejected under 35 U.S.C. 102(b) as being anticipated by Heaney US Patent 4,329,982.

11. **As to claim 1, Heaney discloses** an apparatus for inhibiting foot eversion (see col.1 lines 6-7, col.3 lines 1-2), the apparatus comprising a cuff (see fig.1 reference object 10) positionable around a leg above an ankle joint (see col.3 lines 38-41), a strap (see fig.1 reference object 20) with a first end (see fig.1 a first end connected to the cuff) and a second end (see fig.1 a second end connected to the lateral side of a shoe via reference object 30), the first end connected to the cuff (see fig.1 a first end connected to the cuff) and the second end (see fig.1 a second end connected to the lateral side of a shoe via reference object 30) connectible to footwear (see fig.1 reference object B) at a location on a portion (forward portion of a shoe, see col.2 lines 64-65) of the footwear at an outer side thereof.

12. **As to claim 3, Heaney discloses** the apparatus of claim 1 wherein the second end of the strap is connectible (via reference object 30 in fig.1 see also col.2 lines 61-65) to an outside part of the footwear.

13. **As to claim 7, Heaney discloses** the apparatus of claim 1 further comprising a strap (see fig.1 reference object 12 or 14) for wrapping around (notice, specification does not state wrapping all the way around a wearer's leg) the cuff to secure the cuff around a wearer's leg (see col.3 lines 42-46).

14. **As to claim 8, Heaney discloses** the apparatus of claim 1 further comprising an amount of releasably cooperating fastener material (see fig.1 reference object 13 or 15) on a surface (fig.1 seems to depict that the fastener material is located on a top surface of the cuff) of the cuff, and a corresponding first amount (Velcro securing means on the strap) of releasably (an expected result of a securing device made

Art Unit: 3743

from Velcro hook material, see col.3 lines 46-50) cooperating fastener material on a surface (fig.1 seems to depict fasteners on the ends or back surfaces of the straps) of the strap for facilitating securement of the strap to the cuff.

15. **As to claim 10, Heaney discloses** the apparatus of claim 1 wherein the cuff is positionable above (depicted in fig.1, see col.3 lines 38-41) protruding parts of the ankle thereby preventing the cuff from moving down on the leg below the ankle.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heaney US Patent 4,329,982

17. **As to claim 15, Heaney discloses** an apparatus for inhibiting foot eversion (see col.1 lines 6-7, col.3 lines 1-2), the apparatus comprising a cuff (see fig.1 reference object 10) positionable around a leg above an ankle joint (see col.3 lines 38-41), **however does not disclose** two straps each with a first end and a second end, the first end connected to the cuff and the second end connectible to footwear at a location on a portion of the footwear at an outer side thereof. **A close review of the applicant's disclosure reveals that the applicant has not established criticalities regarding two straps used in the invention as opposed to one strap. Therefore, it would have been obvious to one of ordinary**

skills in the art at the time the invention was made to add a second strap to drop foot device of Heaney for the purposes of providing support to the lateral sides of the ankle.

Claim 2, 11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heaney US Patent 4,329,982 in view of Goffredo US Patent 2,584,010

18. As to claim 2, Heaney does not disclose the apparatus of claim 1 further comprising a front member having a top end connectible to the cuff and a bottom end connectible to a front part of the footwear. As to claim 2, Goffredo teaches improvements in braces for weakened feet (see col.1 lines 1-2) with a tie member ("front member", see fig.1 seems to depict that one end of the tie member is attached to reference object 10 or "cuff") may be used to attach a strap to a shoe (fig.1 seems to depict tie member is connectible to "a front part" of the shoe) worn by a wearer of the strap. This tie member is made of a resilient or elastic material, such as rubber tubing, may be drawn through a ring which loop supports, and said tie member may be tied to said ring in any desired manner. The tightness of the connection between the strap member and the eyelets of the shoe and the elasticity of the tie member will determine the amount of support which the device will give to the weakened foot (see col.2 lines 38-50). Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify the foot support device of Heaney in view of Goffredo in order to provide a front member for the purposes of providing additional support along the forward portion of a weakened foot.

19. As to claim 11, Heaney does not disclose the apparatus of claim 10 wherein the cuff is at least partially supported by the protruding parts of the ankle to facilitate inhibition of eversion of the foot. As to claim 11, Goffredo clearly depicts in figure 1 that the strap is placed upon (includes the protruding

parts of the ankle) the ankle (see col.2 lines 26-27), therefore, the strap is at least partially supported by the protruding parts of the ankle to support a weakened foot (see col.2 lines 48-50). Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify the invention of Heaney in view of Goffredo in order to provide a cuff that is at least partially supported by the protruding parts of the ankle for the purposes of supporting a weakened foot.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heaney US Patent 4,329,982 in view of Robinson US Patent 4,922,630

20. As to claim 9, Heaney does not disclose the apparatus of claim 8 further comprising a second amount of releasably cooperating fastener material on a surface of the strap for releasable securement thereto of at least part of the first amount of releasably cooperating fastener material. As to claim 9, Robinson teaches device for preventing inversion of the ankle (see abstract, col.1 line 12) with a cuff strap adjustably fastened about the leg using a conventional hook and loop fastener (fig.1 depicts two reference object 17 which correspond to first and second amount). The fastener allows proper securement of the strap to the leg for maximum ankle support and comfort (see col.4 lines 56-60). Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify the cuff strap of Heaney in view of Robinson in order to provide a second amount fastener for the purposes of properly securing the strap to the ankle and to further maximizing ankle support.

**Claims 12,13,14, 16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heaney
US Patent 4,329,982 in view of Broadhurst et al. US Patent 4,982,733**

21. As to claim 12, Heaney does not disclose the apparatus of claim 10 further comprising adjustability means for adjusting length of the strap between the cuff and the footwear. As to claim 12, Broadhurst et al. teach ankle brace which emphasizes the stabilization of the ankle joint by straps which are adapted to be specifically positioned to prevent or reduce inversion of the ankle with minimal limitation of other movements within the joint (see col.2 lines 45-51). The brace comprises a cuff, first and second flexible, non-elastic strap means (see col.2 lines 62-63), whereas the strap has a plate portion ("footwear") and a cuff portion (see col.4 lines 42-44). The cuff portion is detachably connected with buckle and may be pulled upwardly to shorten or tighten the strap. Therefore, it would have been obvious to one of ordinary skills in art at the time the invention was made to modify the drop foot device of Heaney in view of Broadhurst et al. in order to provide adjustability means for the purposes of adjusting the length of the strap by pulling upwardly to shorten or tighten the strap.

22. As to claim 13, Heaney does not disclose the apparatus of claim 12 wherein the adjustability means is from the group consisting of openable-closable clasp and buckle apparatus. As to claim 13, Broadhurst et al. teach ankle brace which emphasizes the stabilization of the ankle joint by straps which are adapted to be specifically positioned to prevent or reduce inversion of the ankle with minimal limitation of other movements within the joint (see col.2 lines 45-51). The brace comprises a cuff, first and second flexible, non-elastic strap means (see col.2 lines 62-63), whereas the strap has a plate portion ("footwear") and a cuff portion (see col.4 lines 42-44). The cuff portion is detachably connected with buckle and may be pulled upwardly to shorten or tighten the strap.

Art Unit: 3743

Therefore, it would have been obvious to one of ordinary skills in art at the time the invention was made to modify the drop foot device of Heaney in view of Broadhurst et al. in order to provide a buckle as adjustability means for the purposes of adjusting the length of the strap by pulling upwardly to shorten or tighten the strap.

23. As to claim 14, Heaney does not disclose the apparatus of claim 12 wherein the cuff includes cushion material for the comfort of a user of the apparatus. As to claim 14, Broadhurst et al. teach ankle brace which emphasizes the stabilization of the ankle joint by straps which are adapted to be specifically positioned to prevent or reduce inversion of the ankle with minimal limitation of other movements within the joint (see col.2 lines 45-51). The brace comprises a cuff section, which is cloth covered Neoprene material ("cushion material") (see col.4 lines 17-18) with a peripheral contour similar to the cuff (see col.4 lines 27-28) providing additional padding to the cuff. Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify the drop foot device of Heaney in view of Broadhurst et al. in order to provide a cushion material for the purposes of providing a padding or cushioning adjacent to an ankle.

24. As to claim 16, Heaney disclose an apparatus for inhibiting foot eversion (see col.1 lines 6-7, col.3lines 1-2), the apparatus comprising a cuff (see fig.1 reference object 10) positionable around a leg above an ankle joint (see col.3 lines 38-41), at least one strap (see fig.1 reference object 20) with a first end (see fig.1 a first end connected to the cuff) and a second end (see fig.1 a second end connected to the lateral side of a shoe via reference object 30), the second end (see fig.1 a second end connected to the lateral side of a shoe via reference object 30) releasably (a swivel latch, see col.3 lines 61-65, latch at the end of reference object 30 in fig.1 is considered a releasable hook since one would press the latch to release it from a loop, reference object 32 in fig.1) connectible to footwear

Art Unit: 3743

(see fig.1 reference object B) at a location on a portion (forward portion of a shoe, see col.2 lines 64-65) of the footwear at an outer side (forward portion is depicted as outer side, see fig.1) thereof, the second end of the strap releasably connectible to an outside part (forward portion of a shoe, see col.2 lines 64-65) of the footwear (see fig.1 reference object B), a strap (see fig.1 reference object 12 or 14) for wrapping around (notice, specification does not state wrapping all the way around a wearer's leg) the cuff to secure the cuff around a wearer's leg (see col.3 lines 42-46), an amount of releasably cooperating fastener material (see fig.1 reference object 13 or 15) on a surface (fig.1 seems to depict that the fastener material is located on a top surface of the cuff) of the cuff, and a corresponding first amount (Velcro securing means on the strap) of releasably (an expected result of a securing device made from Velcro hook and loop material, see col.3 lines 46-50) cooperating fastener material on a surface of the strap for facilitating securement of the strap to the cuff, wherein the cuff is positionable above (depicted in fig.1, see col.3 lines 38-41) protruding parts of the ankle thereby preventing the cuff from moving down on the leg below the ankle, **however does not disclose** the first end releasably connected to the cuff, wherein the cuff is at least partially supported by the protruding parts of the ankle to facilitate inhibition of eversion of the foot, and adjustability means for adjusting length of the strap between the cuff and the footwear.

25. As to claim 16, Broadhurst et al. additionally teach ankle brace which emphasizes the stabilization of the ankle joint by straps which are adapted to be specifically positioned to prevent or reduce inversion of the ankle with minimal limitation of other movements within the joint (see col.2 lines 45-51). The brace comprises a cuff, first and second flexible, non-elastic strap means (see col.2 lines 62-63) and means are provided for detachably securing (one) end of the second strap means to the cuff (see col.3 lines 11-13), whereas the strap has a plate portion ("footwear")

and a cuff portion (see col.4 lines 42-44). The cuff portion is detachably connected with buckle and may be pulled upwardly to shorten or tighten the strap. Therefore, it would have been obvious to one of ordinary skills in art at the time the invention was made to modify the drop foot device of Heaney in view of Broadhurst et al. in order to provide a strap with one end releasably attached to the cuff via adjustability means for the purposes of adjusting the length of the strap by pulling upwardly to shorten or tighten the strap.

Drawings

26. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "at least one side post", claim 5; "two side posts" claim 6; "an amount" claim 8; and "an second amount" claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

27. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified

Art Unit: 3743

and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

28. Claims 4-6 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 4-6 depends from claim 1, however claim 1 limitation "a portion of the footwear at an outer side" refers back to subject matter disclosed only in figure 2 (see specification page 9 lines 19-25) which is considered as a different embodiment since it is lacking a reference element 65 "side posts" disclosed in figure 3. Therefore, subject matter disclosed in claims 4-6 is considered indefinite and further will not be considered for the examination purposes since the metes and bounds of the claimed matter cannot be determined without an independent claim directed to the subject matter disclosed in figure 3.

Conclusion

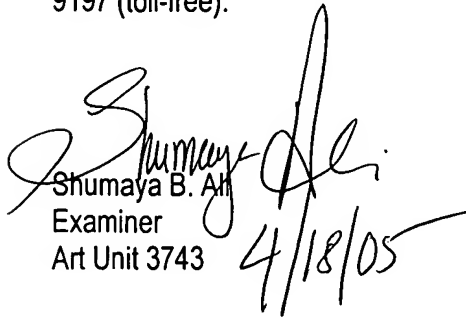
29. The prior art made of record on form PTO-892 and not relied upon disclose anti-drop foot orthosis.

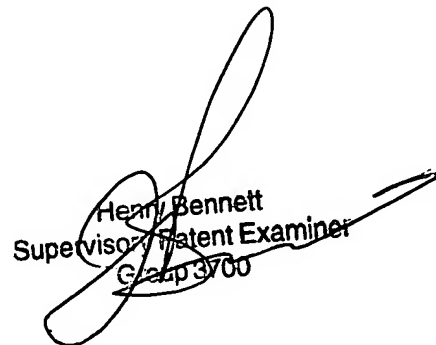
30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shumaya B. Ali** whose telephone number is **571-272-6088**. The examiner can normally be reached on M-F 8:30 am-4: 30 pm.

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Henry Bennett** can be reached on **571-272-4791**. The fax phone number for the organization where this application or proceeding is assigned is 571-273-6088.

Art Unit: 3743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Shumaya B. Ali
Examiner
Art Unit 3743 4/18/05


Henry Bennett
Supervisory Patent Examiner
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